

PATENT COOPERATION TREATY
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 483454 GWW	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/NZ2003/000185	International Filing Date (day/month/year) 21 August 2003	Priority Date (day/month/year) 21 August 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ B07C 7/02, A47B 57/20, 57/20, 57/30		
Applicant NEW ZEALAND POST LIMITED et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 8 sheet(s).

3. This report contains indications relating to the following items:

- | | |
|------|---|
| I | <input checked="" type="checkbox"/> Basis of the report |
| II | <input type="checkbox"/> Priority |
| III | <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| IV | <input type="checkbox"/> Lack of unity of invention |
| V | <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI | <input type="checkbox"/> Certain documents cited |
| VII | <input type="checkbox"/> Certain defects in the international application |
| VIII | <input type="checkbox"/> Certain observations on the international application |

Date of submission of the demand 18 March 2004	Date of completion of the report 7 December 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer BARRY STEPHENS Telephone No. (02) 6283 2106

I. Basis of the report**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed.
- ☒ the description, pages 1, 4-7 as originally filed,
pages , filed with the demand,
pages 2, 3, 3a received on 22 March 2004 with the letter of 18 March 2004
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 8-12, received on 22 March 2004 with the letter of 18 March 2004
- ☒ the drawings, pages 1/9 - 9/9 as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70:2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be nonobvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos: **18-21**

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claim Nos. **18-21**

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 12-16, 17, 22-25	YES
	Claims 1-11	NO
Inventive step (IS)	Claims 12-16, 17, 22-25	YES
	Claims 1-11	NO
Industrial applicability (IA)	Claims 1-17, 22-25	YES
	Claims NONE	NO

2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: FR 2519243 A (SIMON), 8 July 1983

D2: DE 2425837 A (KESSEBOHMER), 11 December 1975

D3: DE 29519639 U1(BERGMANN), 10 April 1997

D4: WO 2001/089727 A (NEW ZEALAND POST LTD), 29 November 2001

New documents found:

D5: AU 72571/87 A (WALKER), 12 November 1987

2.1 Novelty (N) and Inventive Step (IS):

D1-D5 constitute the most relevant documents.

a) Claims 1-7, 8-11.

D5 discloses all the features of the independent claim 1. See figure 1 of D5 which discloses a stand suitable for mail sorting etc. having a modular construction wherein item 4 is the upright frame member, a shelving system (item 13) connectable to the frame members by one or more bracket parts (item 5) which enables the shelves (13) to be mounted to and removed from the upright member from the front of the frame members wherein each shelf includes a tubular shelf frame (item 13) carried by one or more of the said bracket parts (item 5) for supporting a tray, bin, basket or similar.

Thus claim 1 is not novel nor involve an inventive step when compared with D5. Claim 1 also lacks an inventive step when the upright frame and bracket disclosed in each of the documents D1-D4 is combined with the tubular shelf disclosed in D5. Features added to by the appended claims 2-7 relate only to conventional manufacturing techniques or are features which are typical in the devices of the type and are therefore considered not to contribute to patentable ingenuity.

Similar arguments apply to the independent Claim 8 and claims 9-11 appended thereto.

b) However none of the documents D1-D5 either individually or considered in combination disclose the special technical feature of the independent apparatus claim 12 and the method claim 22 viz. "bracket parts include an entry on one side enabling the one or more shelves to be mounted to or removed from the upright members from one side of the upright frame members" (Claim 12, lines 5-7). Thus claims 12-16, 22-25 are considered to be novel and inventive.

c) Claim 17 defines a bracket the special features of which are not disclosed in any of the documents D1-D5 considered individually or in combination.

2.2 All the claims conform to the criteria of Industrial Applicability

In broad terms in one aspect the invention comprises a stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side or from the front of the frame members; wherein each shelf includes a tubular shelf frame carried by one or more of said bracket parts for supporting a tray, bin, basket or similar.

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- 10 In broad terms in another aspect the invention comprises a stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side of the
- 15 frame; wherein the bracket part(s) include an entry on one side enabling the one or more shelves to be mounted to and removed from the upright frame members from one side of the upright frame members.

- The invention also provides a method of constructing or deconstructing a stand
- 20 according to the previous aspect of the invention, the method including mounting or removing the shelf to or from the upright frame members from one side of the upright frame members.

- In a preferred form the bracket parts include a hollow interior defined between an upper portion for engaging an upright member from the rear and a lower portion for engaging the upright member from the front when a shelf is mounted to the upright members, and an entry in the form of a longitudinally extending aperture on one side of the bracket part, so that the shelves may be mounted to the upright members by tilting a shelf upwardly from its normal mounted position, moving the shelf on to the upright
- 25 members from one side so that the tubular upright members pass through the entry passage into the brackets, and then dropping the shelf downwardly, to engage the shelf in position on to the upright members (and the reverse for removal).
- 30

Preferably the shelf members also include a lightweight tubular frame carried by the bracket parts for mounting a tray, bin(s), basket(s), or similar.

- 5 By tubular in relation to the upright frame member(s) is meant not only metal or plastic tube of a circular cross-section but also upright members having a hollow oval, square, or rectangular or other cross-sectional shape, and also in it's broadest sense the lightweight upright members forming the frame of the stand which may not have a closed tubular section but may have a U or C shaped cross-section shape for example.

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- In broad terms in another aspect the invention comprises a support part or bracket for supporting an item from an upright member, including a hollow interior defined between an upper portion for engaging the upright member from the rear and a lower portion for engaging the upright member from the front when the item is mounted to the upright member, and an entry in the form of a longitudinally extending aperture on one side of the support part, so that the item may be mounted to the upright member by tilting the support part upwardly from it's normal mounted position, moving the support part on to the upright member from one side so that the tubular upright member passes through the entry passage into the support part, and then dropping the item downwardly, to engage the item in position on to the upright member (and the reverse for removal).

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- In broad terms in another aspect the invention comprises a stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side or from the front of the frame members; wherein one or more of the shelves each carry on the shelf frame thereof a tray, bin, basket or similar comprising a base and a rear wall; wherein the tray, bin, basket or similar comprises two or more similar segments which connect together.

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In broad terms in another aspect the invention comprises a tray, bin, basket or similar for use in a stand for mail sorting or other applications, the tray, bin, basket or similar including two or more similar segments which are interconnected, each segment including a base and a rear wall.

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In broad terms in another aspect the invention comprises a segment for use in a tray, bin, basket or similar according to the previous aspect of the invention, the segment including a base and a rear wall, a protruding part on one side and a corresponding recess on the other side.

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BRIEF DESCRIPTION OF THE DRAWINGS

The invention is further described with reference to the accompanying drawings which show a preferred form mail sorting stand of the invention, by way of example and without intending to be limiting. In the drawings:

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Figure 1 is a perspective view of the preferred form mail sorting stand,

Figure 2 is a view of the preferred form mail sorting stand from the front,

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Figure 3 is a view of the preferred form mail sorting standing stand from one side,

Figure 4 is a view of the preferred form mail sorting stand from the rear,

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Figure 5 is a view of the preferred form mail sorting stand from above,

Figure 6 is a view from one side of one shelf and bracket member of the preferred form mail sorting stand, in the direction of arrow A in Figure 2,

CLAIMS:

1. A stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system
5 including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side or from the front of the frame members; wherein each shelf includes a tubular shelf frame carried by one or more of said bracket parts for supporting a tray, bin, basket or similar.
- 10 2. A stand according to claim 1 wherein the stand comprises two or more upright tubular frame members connected together at an upper part of the frame members.
3. A stand according to claim 2 wherein the stand comprises two upright tubular
15 frame members and a connection between an upper part of the frame members, which are formed from a single length of tubular material in an inverted U shape.
4. A stand according to any one of the preceding claims, wherein the shelf frame(s) and bracket part(s) are separate components which can be fitted together.
- 20 5. A stand according to any one of the preceding claims wherein said tubular shelf frame includes parallel rear and front frame parts for supporting a separately formed tray, bin, basket or similar.
- 25 6. A stand according to claim 5 wherein the shelf frame is formed by a single length of tubular material formed into an open rectangular shape.
7. A stand according to claim 5 wherein the bracket part(s) which connect the shelf frame to the frame member(s) are carried by the rear shelf frame part.
- 30 8. A stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system

including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side or from the front of the frame members; wherein one or more of the shelves each carry on the shelf frame thereof a tray, bin, basket or similar
5 comprising a base and a rear wall; wherein the tray, bin, basket or similar comprises two or more similar segments which connect together.

9. A stand according to claim 8 wherein one or more formations on the back of the rear wall of the tray, bin, basket or similar clip-connect to the rear shelf frame part and
10 the underside of the base of the tray, bin, basket or similar is supported by the front shelf frame part.

10. A stand according to any one of claims 8 to 9 including partitions for dividing the tray, bin, basket or similar across the stand.

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11. A stand according to claim 10 wherein the tray, bin, basket or similar is formed with a plurality of apertures spaced along its length into which said partitions may be engaged to connect the partitions to the tray, bin, basket or similar.

20 12. A stand for mail sorting or other applications, which is of modular construction and includes one or more upright tubular frame members and a shelving system including one or more shelves each connectable to the frame member(s) by one or more bracket parts enabling the shelves to be mounted to and removed from the upright frame member(s) from one side of the frame; wherein the bracket part(s) include an entry on
25 one side enabling the one or more shelves to be mounted to and removed from the upright frame members from one side of the upright frame members.

13. A stand according to claim 12 wherein the bracket parts include a hollow interior defined between an upper portion for engaging an upright frame member from
30 the rear and a lower portion for engaging the upright frame member from the front when a shelf is mounted to the upright member(s), and said entry in the form of a longitudinally extending aperture on one side of the bracket part, so that the shelves

may be mounted to the upright frame member(s) by tilting a front of a shelf upwardly relative to it's normal position when mounted to the upright frame member(s), moving the shelf on to the upright member(s) from one side so that the tubular upright member(s) pass through the entry passage into the bracket(s), and then dropping the front of the shelf downwardly, to engage the shelf in position on the upright frame member(s) (and the reverse for removal).

14. A stand according to claim 13 wherein the upright frame member(s) include a series of apertures or indentations along the length(s) thereof into which a protrusion from the interior of the bracket part(s) may locate when shelves are mounted to the upright frame members.

15. A stand according to any one of the preceding claims, wherein the stand is a mail sorting stand, including two upright tubular frame members, wherein each shelf includes a lightweight tubular shelf frame and wherein the upright frame members and shelf frames are formed from lightweight metal tube, and also including one or more tray(s), bin(s), basket(s) or similar carried by the shelf frames.

16. A mail sorting stand according to claim 15 wherein the bracket parts and the tray, bin, basket or similar are formed from a plastic material.

17. A support part or bracket for supporting an item from an upright member, including a hollow interior defined between an upper portion for engaging the upright member from a rear and a lower portion for engaging the upright member from a front when the item is mounted to the upright member, and an entry in the form of a longitudinally extending aperture on one side of the support part, so that the item may be mounted to the upright member by tilting the support part upwardly from it's normal mounted position, moving the support part on to the upright member from one side so that the tubular upright member passes through the entry passage into the support part, and then tilting the item downwardly, to engage the item in position on the upright member (and the reverse for removal).

18. A tray, bin, basket or similar for use in a stand for mail sorting or other applications, the tray, bin, basket or similar including two or more similar segments which are interconnected, each segment including a base and a rear wall.

5 19. A tray, bin, basket or similar according to claim 18, wherein each adjacent pair of segments are interconnected by a protruding part on a side of a first one of the adjacent segments which engages into a corresponding recess on a side of a second one of the adjacent segments.

10 20. A tray, bin, basket or similar according to claim 19 wherein each segment includes a protruding part on one side and a corresponding recess on the other side.

21. A segment for use in a tray, bin, basket or similar according to any of claims 18 to 20, the segment including a base and a rear wall, a protruding part on one side and a
15 corresponding recess on the other side.

22. A method of constructing a stand according to claim 12, the method including mounting the shelf to the upright frame members from one side of the upright frame members.

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23. A method according to claim 22 wherein the mounting of the shelf to the upright frame members includes the steps of:

tilting the bracket upwardly so that the longitudinally extending aperture on the side of the bracket part aligns with the side of the upright frame member;

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moving the bracket on to the upright frame member from one side so that the tubular upright frame member passes through the entry passage in the bracket; and

tilting the bracket downwardly so that the lower portion of the bracket and the upper portion of the bracket engage the shelf in position on the upright frame member.

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24. A method of deconstructing a stand according to claim 12, the method including removing the shelf from the upright frame members from one side of the upright frame members.

25. A method according to claim 24 wherein the removing of the shelf from the upright frame members includes the steps of:

- 5 tilting the bracket upwardly so that the longitudinally extending aperture on the side of the bracket part aligns with the side of the upright frame member;
- moving the bracket away from the upright frame member from one side so that the tubular upright frame member passes through the entry passage in the bracket.